

REMARKS

Claims 1-4 and 6-10 are currently pending in the present application with Claims 1, 3 and 4 as independent claims. In the Office Action the Examiner rejected the Claims as follows. Claims 1-4 and 6-10 are again rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter: algorithm. Claims 1 and 2 are rejected under 35 USC §103(a) as being unpatentable over Hassoun, "Fundamentals of Artificial Neural Networks," (1995) in view of Ejiri et al. (US Patent No.: 4,972,473). Claims 3 and 7 are rejected under 35 USC §102(b) as being anticipated by Wang et al. (US Patent No.: 5,548,684). Claim 4 is rejected under 35 USC §103(a) as being unpatentable over Wang in view of Ejiri. Claim 6 is rejected under 35 USC §103(a) as being unpatentable over Wang in view of Moore et al. "Classification of RF transients in space using digital signal processing and neural network techniques," (1995).

Reconsideration of this application is respectfully requested.

In rejecting Claims 1-3, 4 and 6-10 under 35 U.S.C. §101, the Examiner states, "Claim 1 entails no physical transformation and while the actual performance of decoding a time-varying signal comprising a sequence of input symbols may be concrete and useful, the tangible requirement does require that the claim recite more than a §101 judicial exception, and set forth a practical application of that §101 judicial exception to produce a real-world result." The Applicant respectfully disagrees and therefore, respectfully requests that the Examiner produce authority for this position because the claim does recite a practical application producing real-world results, i.e. a time-varying signal decoder.

Second, Claim 7 is rejected under 35 USC §102(b) while Claim 4, from which Claim 7 depends, is rejected under 35 USC §103(a). Since Claim 7 incorporates all of the limitations of Claim 4 and Claim 4 is rejected under §103(a), Claim 7 cannot be properly rejected under §102(b). This constitutes an improper rejection, and therefore a new non-Final rejection is respectfully requested. This is incompatible with a complete and clear rejection. See CFR 1.104 and MPEP §707.07(d).

Claim 6 is also improperly rejected based on the same theory invoked above. This is one more reason why a new Office Action is required.

Third, in rejecting Claim 3, the Examiner failed to consider the claim in its entirety. Better than half of the claim is left out; in this case, the Applicant cannot properly respond to the Action because the rejection of the claim does not afford the Applicant the opportunity to ascertain the veracity of the Examiner's interpretation of a specific element of the claim.

Referring to Claims 1, 2 and 4, the rejection is respectfully traversed based on the arguments set forth below.

The present invention discloses the network is thus trained to decode using the coder inputs, rather than the decoder outputs as in the prior art. (See, page 14, lines 4-5; input terminal of Comparison 300 in Fig 6). In contrast, Ejiri teaches data extracted from each block is used as input data of first multi-layered neural network 14 and data outputted from the intermediate layer of the first multi-layered neural network 14 is only transmitted to the second multi-layered neural network 17. However, the data from an intermediate layer is not compared with the input data of the first neural network 14, resulting in the first multi-layered neural network 14 not being trained.

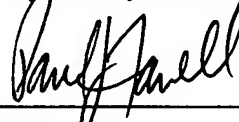
The distinguishing features of the above configuration are recited in independent Claims 1, 3 and 4 respectively as "wherein the input symbol is transmitted together with the plurality of output symbols to a communications network decoder", "the input symbol is transmitted together with the plurality of output symbols to a communications network for decoding encoded communications" and "wherein at least one of the input symbols is transmitted to the communication network decoder together with the coded output symbols, and fed to its inputs together with the fed-back decoded symbols"

Accordingly, independent Claims 1, 3, and 4 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2 and 6-10, these claims are likewise believed to be allowable by virtue of their dependence on their respective amended independent

claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2 and 6-10 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-4 and 6-10 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,



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